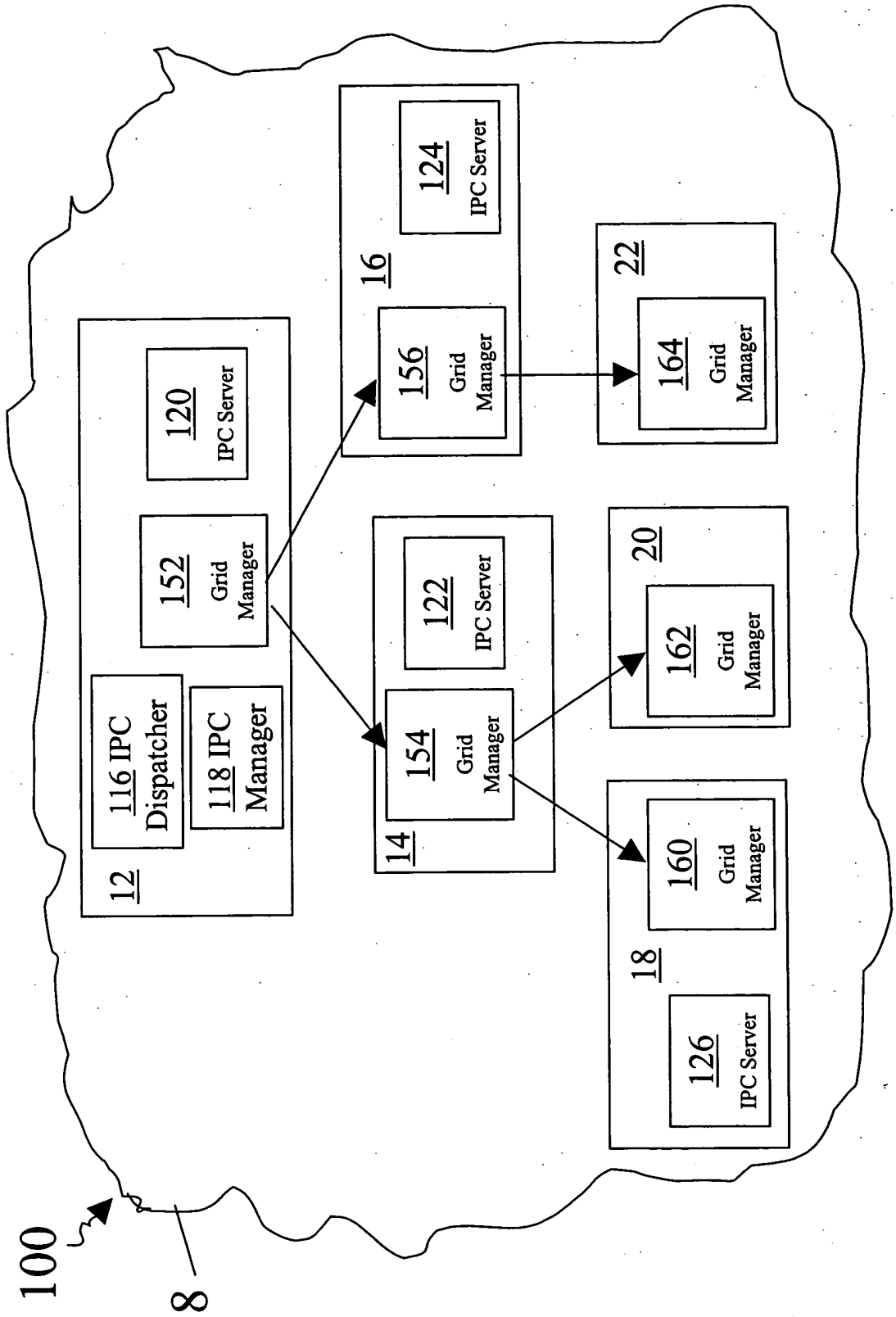
100
8
12
116 IPC Dispatcher
118 IPC Manager
120 IPC Server
152 Grid Manager
14
122 IPC Server
154 Grid Manager
16
124 IPC Server
156 Grid Manager
18
126 IPC Server
160 Grid Manager
20
162 Grid Manager
22
164 Grid Manager

FIG. 1

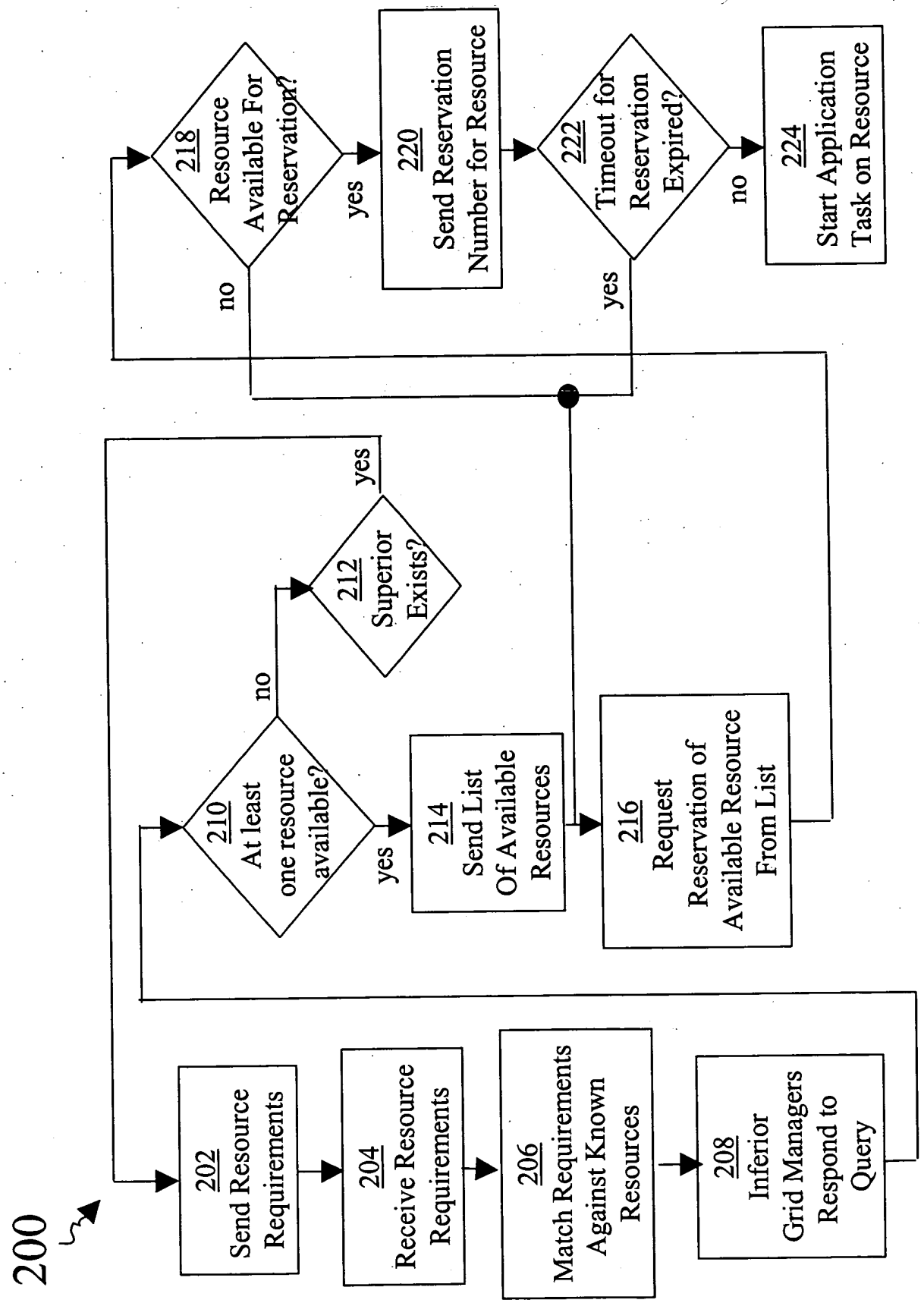
200
202 Send Resource Requirements
204 Receive Resource Requirements
206 Match Requirements Against Known Resources
208 Inferior Grid Managers Respond to Query
210 At least one resource available?
yes
no
212 Superior Exists?
yes
214 Send List Of Available Resources
216 Request Reservation of Available Resource From List
218 Resource Available For Reservation?
yes
no
220 Send Reservation Number for Resource
222 Timeout for Reservation Expired?
yes
no
224 Start Application Task on Resource

FIG. 2

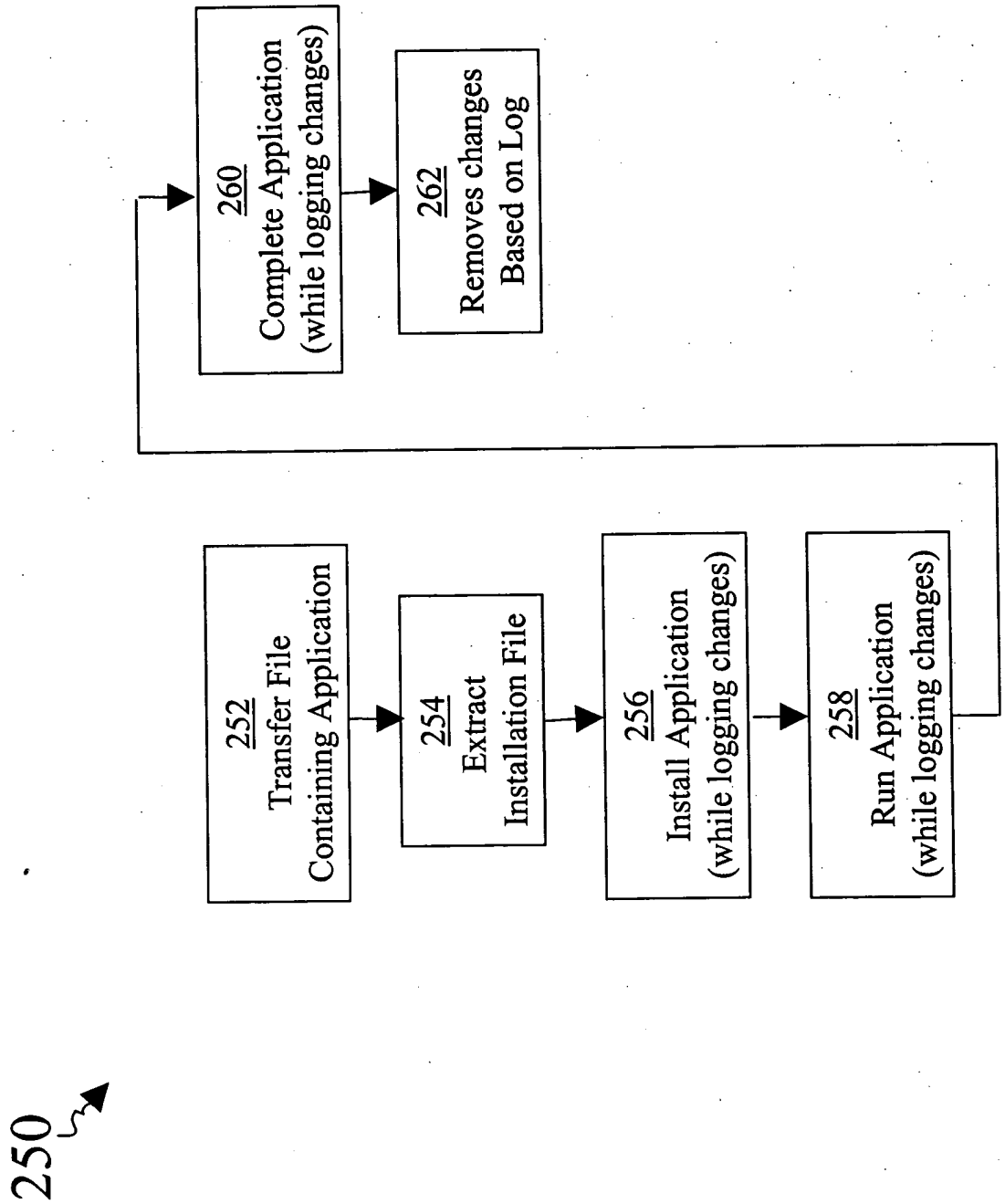
250
252
Transfer File
Containing Application
254
Extract
Installation File
256
Install Application
(while logging changes)
258
Run Application
(while logging changes)
260
Complete Application
(while logging changes)
262
Removes changes
Based on Log

FIG. 3

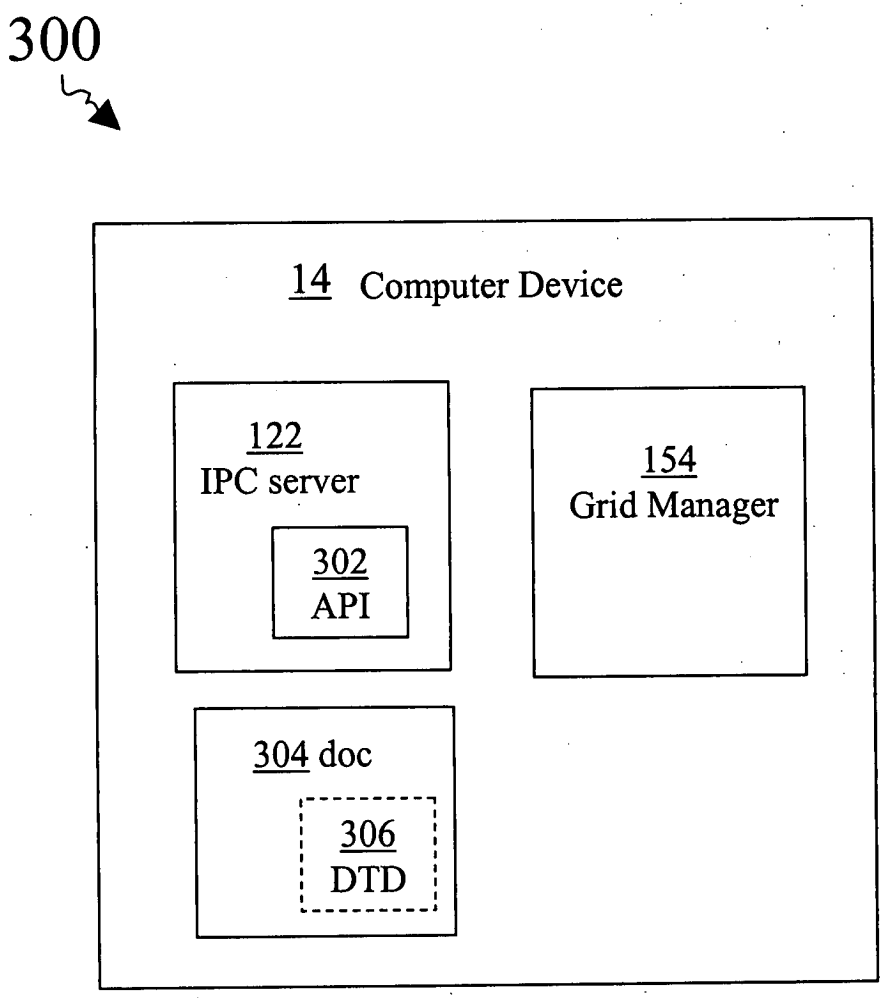
300
14 Computer Device
122
IPC server
302
API
154
Grid Manager
304 doc
306
DTD

FIG. 4

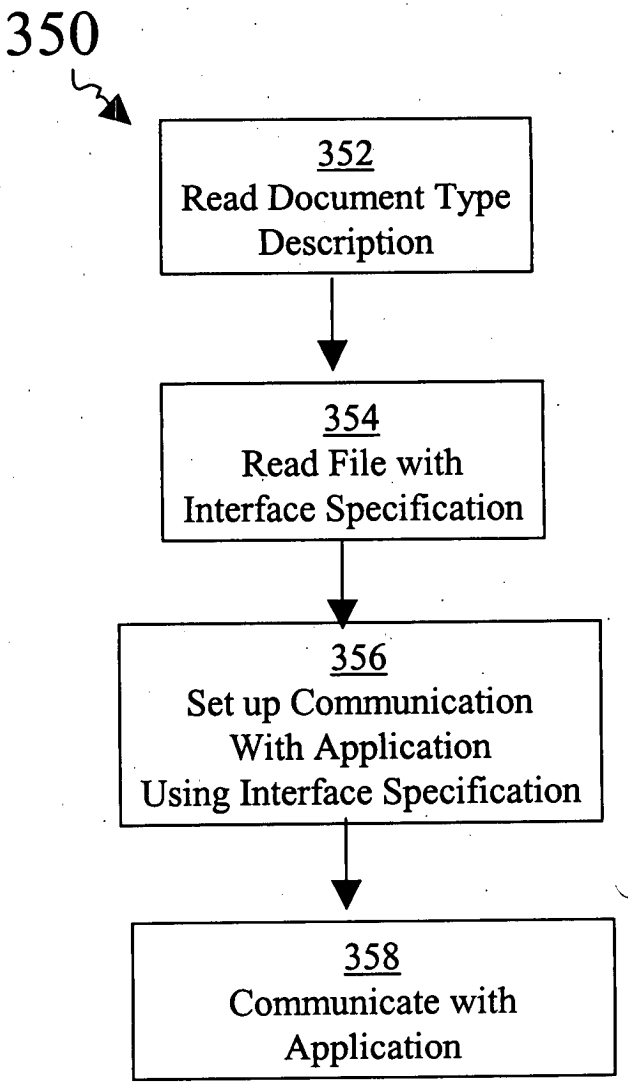
350
352
Read Document Type Description
354
Read File with Interface Specification
356
Set up Communication With Application Using Interface Specification
358
Communicate with Application

FIG. 4A

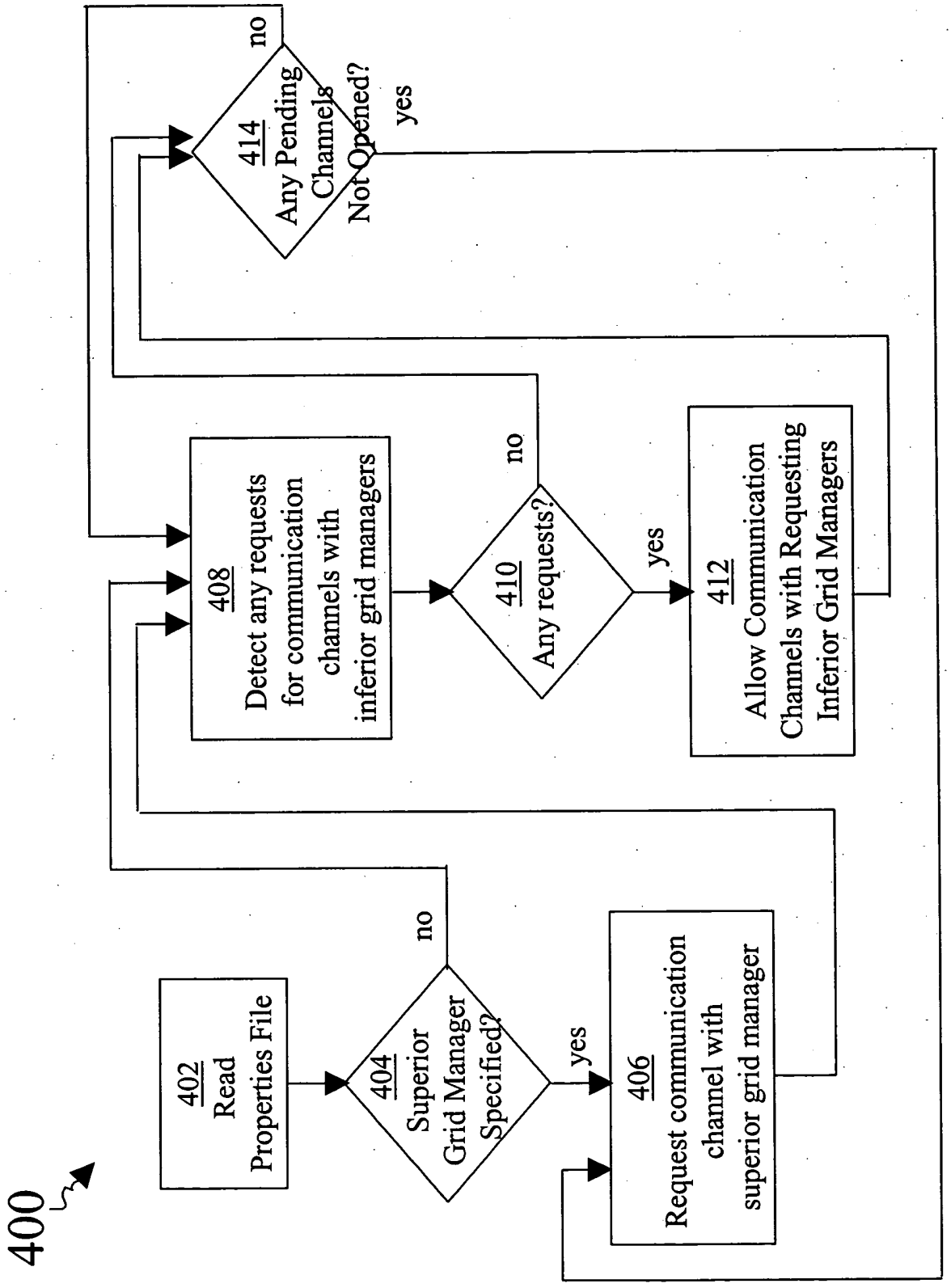
400
402 Read Properties File
404 Superior Grid Manager Specified?
no
yes
406 Request communication channel with superior grid manager
408 Detect any requests for communication channels with inferior grid managers
410 Any requests?
no
yes
412 Allow Communication Channels with Requesting Inferior Grid Managers
414 Any Pending Channels Not Opened?
no
yes

FIG. 5

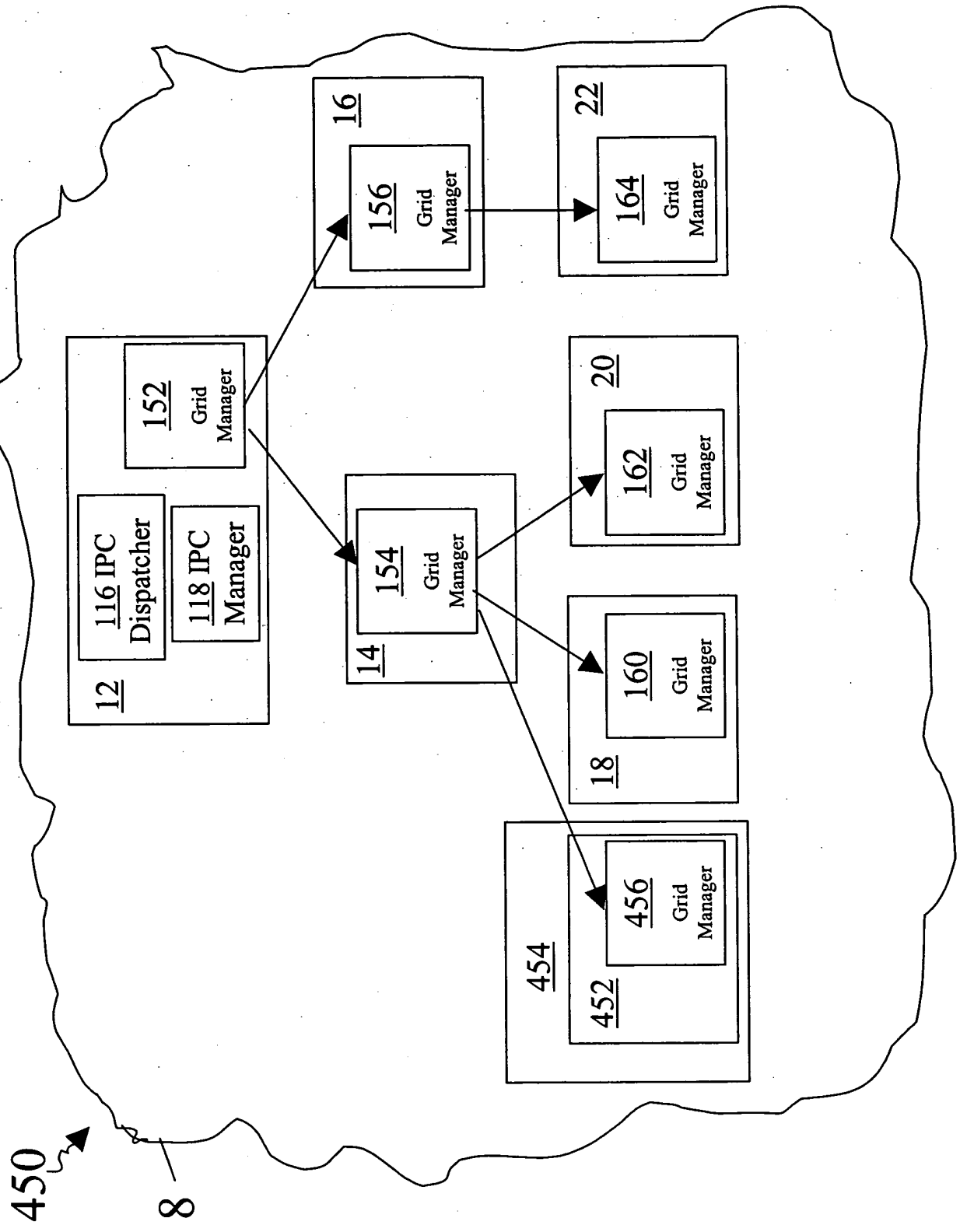
450
8
12
116 IPC Dispatcher
118 IPC Manager
152 Grid Manager
14
154 Grid Manager
16
156 Grid Manager
18
160 Grid Manager
20
162 Grid Manager
22
164 Grid Manager
454
452
456 Grid Manager

FIG. 5A

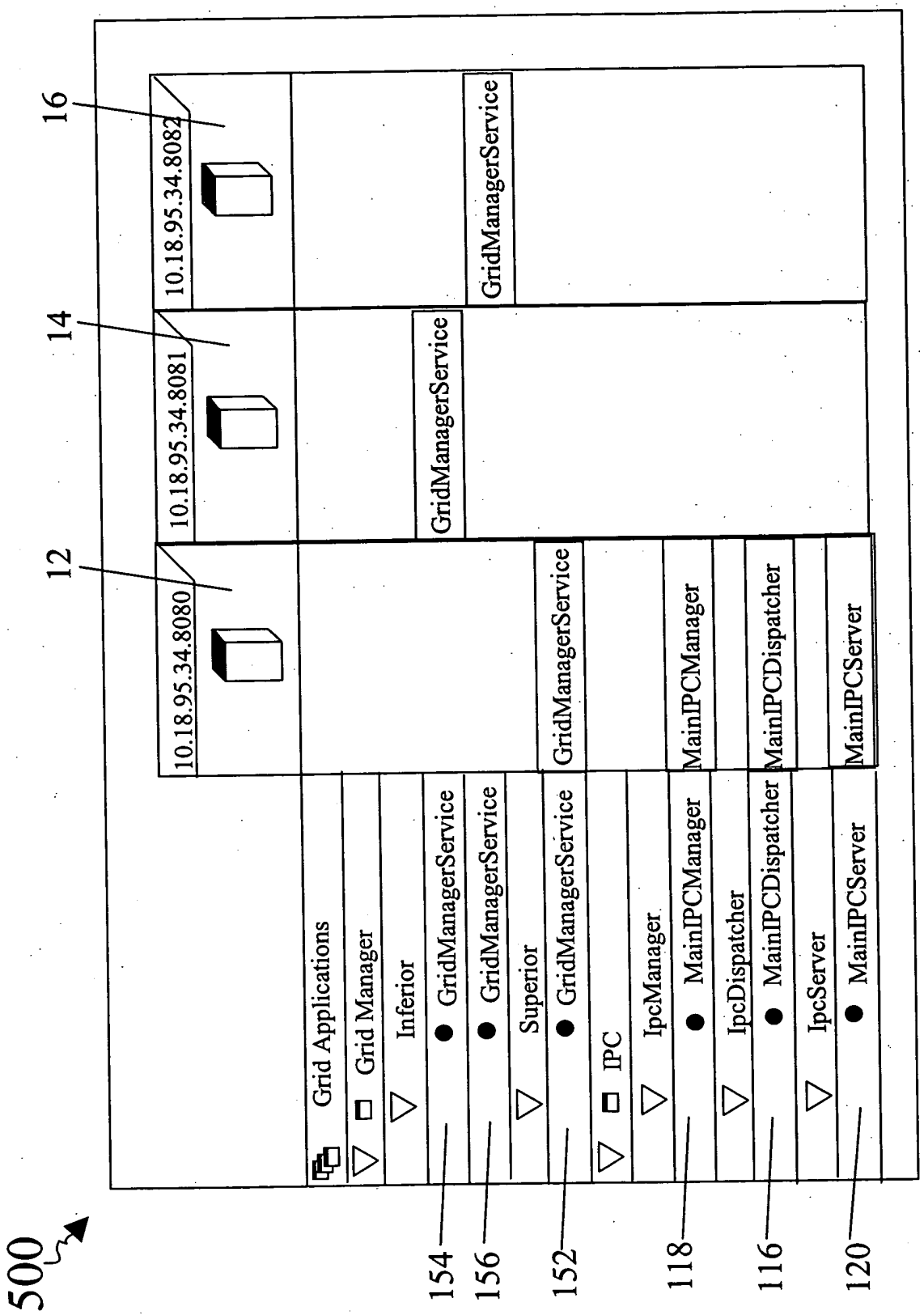
500
12
14
16
10.18.95.34.8080
10.18.95.34.8081
10.18.95.34.8082
GridManagerService
GridManagerService
GridManagerService
Grid Applications
Grid Manager
Inferior
GridManagerService
Superior
GridManagerService
IPC
IpcManager
MainIPCManager
IpcDispatcher
MainIPCDispatcher
IpcServer
MainIPCServer
154
156
152
118
116
120

FIG. 6

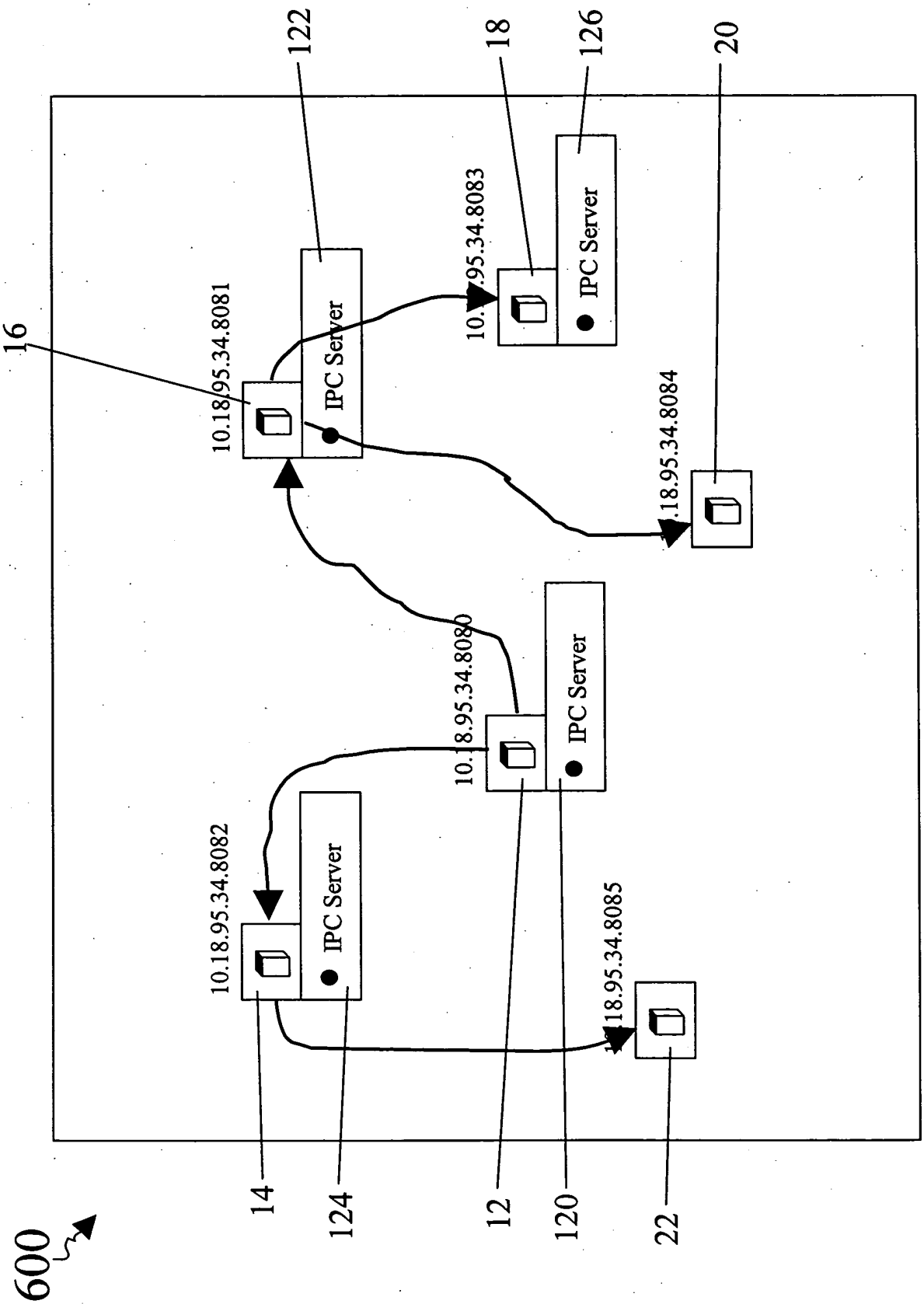
600
16
122
18
126
20
14
124
12
120
22
10.18.95.34.8081
IPC Server
10.18.95.34.8083
IPC Server
10.18.95.34.8084
10.18.95.34.8080
IPC Server
10.18.95.34.8082
IPC Server
10.18.95.34.8085

FIG. 7